REMARKS

The Final Office Action dated June 22, 2007 has been carefully considered. Claims 1, 3 and 5 have been amended. Claims 1-36 are in this application.

Claim 1 has been amended to add the limitation that the stent has a size which morphologically matches the ascending aorta and the stent supports the exterior of the ascending aorta in substantially full contact therewith. Support for this amendment is found throughout the specification and in particular at paragraph 14 and paragraph 54. No new matter has been added.

Claims 32 and 33 are allowed.

The previously presented claims 1, 2, 4-10, 15, 16, 18-22, and 24-26 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,648,911 to Sirhan et al. Applicants submit that the teachings of this reference do not disclose or suggest the invention defined by the present claims.

Applicants submit that in the present invention, the stent is custom made such that its shape conforms morphologically to the blood vessel, such as the ascending aorta, to which it will be applied. Accordingly, when the stent is applied it supports the exterior of the blood vessel in substantially full contact with the blood vessel.

In particular, Applicants submit that in the case when the stent is adapted for location exteriorly of an ascending aorta, this type of blood vessel has a highly complex shape and only the stents of the present invention are able to be locatable around the ascending aorta in morphological relationship with it. Specifically, the round-trilobal-round cross-sectional morphology of the ascending aorta is very difficult to externally support, particularly as, once out of the trilobal valve region, the ascending aorta then curves and tapers at the same time.

Sirhan et al. describe a method and device for treatment of a vulnerable tissue site. The vulnerable tissue site is described as arterial and other aneurysms, including neurovascular aneurysms, veins, vein grafts and expanded or thyroid tissues or various organs and body surfaces.

In contrast to the invention defined by the present claims, Sirhan et al. do not teach or suggest a stent having a size which morphologically matches the morphological profile of the blood vessel, such as the ascending aorta. Further, Sirhan et al. do not teach or suggest that the stent supports the exterior of the blood vessel in substantially full contact therewith. Rather, Sirhan et al. teach a containment member which has a specific shape such as a tubular

body. There is no teaching or suggestion of Sirhan et al. that the containment member has a size which morphologically matches the morphological profile of the blood vessel. Accordingly, Sirhan et al. do not teach all the features of the present claims and the invention defined by amended claim 1 is not anticipated by Sirhan et al.

With regard to claim 3, Sirhan et al. do not teach or suggest that the stent has one or more sections of varying form in order to conform to the morphological requirements in any particular case.

Dependent claims 2, 4-10, 15, 16, 18-22 and 24-26 which are dependent on claim 1 are believed to be allowable for the same reasons that claim 1 is allowable.

Claim 17 was rejected under 35 U.S.C. § 103 as obvious in view of Sirhan et al.

As described above, Sirhan et al. do not teach or suggest a stent having a size which morphologically matches the morphological profile of the blood vessel, such as the ascending aorta and that the stent supports the exterior of the blood vessel in substantially full contact therewith. Rahter, the stent of Sirhan et al. imposes its own morphology on the blood vessel. Applicants submit that one of ordinary skill in the art would not use the stent of Sirhan et al. for use in the ascending aorta because the stent of Sirhan et al. does not have a morphological profile of the ascending aorta. Accordingly, the invention defined by the present claims is not obvious in view of Sirhan et al.

Claims 3, 11, and 12 were rejected under 35 U.S.C. § 103 as obvious in view of Sirhan et al. in combination with U.S. Patent No. 5,476,471 to Shifrin et al.

Shifrin et al. describe a device and method for external correction of insufficient values in venous junctions. The compression device has a band encompassing at least two veins of the junction.

In contrast to the invention defined by the present claims, Shifrin et al. do not teach or suggest a stent having a size which morphologically matches the morphological profile of the blood vessel, such as the ascending aorta, or that the stent supports the exterior of the blood vessel in substantially full contact therewith. In contrast, Shifrin et al. is directed to a device formed of a band disposed around at least two veins of venous junction. There is no teaching or suggestion in Shifrin et al. of providing a stent having a size which morphologically matches the morphological profile of a blood vessel. Instead, the stent of Shifrin et al. imposes its own morphology on the blood vessel. Accordingly, Shifrin et al. do not cure the

deficiencies of Sirhan et al. described above and the invention defined by the present claims is not obvious in view of Sirhan et al. alone or in combination with Shirfin et al.

Claims 13 and 14 were rejected under 35 U.S.C. § 103 as obvious in view of Sirhan et al. in combination with U.S. Patent No. 6,554,856 to Doorly et al.

Doorly et al. disclose a stent for supporting part of a blood vessel. The stent includes a supporting portion around which or with which an associate graft can be placed.

In contrast to the invention defined by the present claims, Doorly et al. do not teach or suggest a stent having a size which morphologically matches the morphological profile of the blood vessel, such as the ascending aorta and that the stent supports the exterior of the blood vessel in substantially full contact therewith. Rather, Doorly et al. is directed to a stent for supporting a blood vessel having a nonplanar curved form. There is no teaching or suggestion in Doorly et al. providing a stent having a size which morphologically matches the morphological profile of a blood vessel. Rather, the stent of Doorly et al. imposes its own morphology on the blood vessel. Accordingly, Doorly et al. do not cure the deficiencies of Sirhan et al. described above and the invention defined by the present claims is not obvious in view of Sirhan et al. alone or in combination with Doorly et al.

Claim 23 was rejected under 35 U.S.C. § 103 as obvious in view of Sirhan et al. in combination with U.S. Patent Application Publication No. 2002/0103527 to Kocur et al.

Kocur et al. disclose a stent for implantation into a body lumen such as blood vessels, urinary tract, coronary vasculature, esophagus, trachea, colon and biliary tract. A tube or mandrel is covered with a covering material. The tube has two open ends and the sidewalls comprise a plurality of struts.

In contrast to the invention defined by the present claims, Kocur et al. do not teach or suggest a stent having a size which morphologically matches the morphological profile of the blood vessel, such as the ascending aorta and that the stent supports the exterior of the blood vessel in substantially full contact therewith. Instead, Kocur et al. is directed to a stent formed as a sidewall and a channel, the sidewall comprising a plurality of struts. There is no teaching or suggestion in Kocur et al. providing a stent having a size which morphologically matches the morphological profile of a blood vessel. Rather, the stent of Kocur et al. imposes its own morphology on the blood vessel. Accordingly, Kocur et al. do not cure the deficiencies of Sirhan et al. described above and the invention defined by the present claims is not obvious in view of Sirhan et al. alone or in combination with Kocur et al.

Claims 27-31 and 36 were rejected under 35 U.S.C. § 103 as obvious in view of Sirhan et al. in combination with U.S. Patent No. 6,112,109 to D'Urso.

In the Office Action, the Examiner states that D'Urso teaches a method of manufacturing a stent. There is no such teaching in D'Urso. Instead, D'Urso teaches a method for stereolithographic construction of models including prostheses; see col. 4, lines 5-33. From col. 8, lines 44-46, it is clear that prosthetic implant 17 replaces an aortic junction. D'Urso does not teach or suggest a method for morphologically fitting a blood vessel. Further D'Urso does not teach or suggest rapid prototyping a computerized 3D model in an appropriate material for morphologically matching the blood vessel.

In view of the foregoing, Applicants submit that all pending claims are in condition for allowance and request that all claims be allowed. The Examiner is invited to contact the undersigned should he believe that this would expedite prosecution of this application. It is believed that no fee is required. The Commissioner is authorized to charge any deficiency or credit any overpayment to Deposit Account No. 13-2165.

Respectfully submitted,

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Diane Dunn McKay, Esq.
Reg. No. 34,586
Attorney for Applicant

MATHEWS, SHEPHERD, McKAY & BRUNEAU, P.A.
29 Thanet Road, Suite 201
Princeton, NJ 08540
Tel: 609 924 8555
Fax: 609 924 3036